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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,358	10/16/2001	Rembert Pieper	42521	3368
22878 7590 08/10/2007 AGILENT TECHNOLOGIES INC. INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT. MS BLDG. E P.O. BOX 7599 LOVELAND, CO 80537			EXAMINER VENC1, DAVID J	
			ART UNIT 1641	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/977,358

Applicant(s)

PIEPER ET AL.

Examiner

David J. Venci

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 3, 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,52,62-69,84,85,88,89,104-107 and 110-113 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,52,62-69,84,85,88,89,104-107 and 110-113 is/are rejected.
- 7) ☒ Claim(s) 111 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

Examiner acknowledges Applicants' reply July 3, 2007. Currently, claims 32, 52, 62-69, 84-85, 88-89, 104-107 and 110-113 are pending.

Claim Objections

The amendment filed on July 3, 2007, does not comply with the requirements of 37 CFR 1.121(c) because Applicants have not provided an accurate marked up version of the amended claims. Specifically, claim 111 does not show the deleted word "three" and the added word "the". Appropriate correction is required.

Claim Rejections - 35 USC § 112 – second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32, 52, 62-69, 84-85, 88-89, 104-107 and 110-113 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 63 and 84, the claim preambles do not correspond to the method outcomes. Specifically, the methods appear complete upon performance of "removing". The last step of "recovering" in each of claims 63 and 84 appears extraneous.

In claim 84, the phrase "said first and second solid phase matrices" lacks antecedent basis.

In claim 104, the phrase "the particular proteins" lacks antecedent basis.

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32, 52, 62-69, 84, 88, 89, 104, 105 and 110-113 are rejected under 35 U.S.C. 102(e) as being anticipated by Hutchens & Yip (US 6,225,047).

Hutchens & Yip describe a method for producing a modified sample, said method comprising:

- (1) removing (see col. 36, lines 52-67, "extract") at least a first protein and a second protein (see col. 36, lines 52-67, "un-desired analytes") from a sample, said removing step comprising:

contacting the sample with an affinity binding composition (see col. 20, line 9, "solid phase") comprising:

- i. a plurality of receptor types (see e.g., col. 20, line 8, "adsorbent") having different protein binding specificities relative to each other (see e.g., col. 21, line 36, "Incremental or Gradient Adsorbent Surfaces"; see *also*, col. 13, lines 52-53, "multiplex adsorbent"), each receptor type immobilized

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on separate particles (see col. 20, lines 9-10, "polymeric or glass bead"),
the particles present as a mixture in said affinity binding composition;

- (2) recovering the modified sample (see col. 36, lines 52-67, "the finally collected wash is depleted of un-desired analytes").
-

Claims 62-64, 66, 84-85, 88-89, 104 and 110-113 are rejected under 35 U.S.C. 102(b) as being anticipated by Rubenstein (US 5,879,881).

Rubenstein describes a method for producing a modified sample, said method comprising:

- (1) removing (see e.g., col. 6, line 20, "capturing"; see *also*, line 35, "the capture") at least a first protein and a second protein (see e.g., col. 6, line 1, "at least two selected analytes"; see *also*, lines 20-21, "IgE antibodies"; see *also*, lines 35-36, "different ligands") from a sample, said removing step comprising:

contacting the sample with an affinity binding composition (see e.g., col. 6, line 8, "porous matrix"; see *also*, line 19, "matrix"; see *also*, Fig. 4, matrix 10) comprising:

- i. a plurality of receptor types having different protein binding specificities relative to each other (see e.g., col. 6, line 5, "different enzyme labeled antibodies"; see *also*, line 20, "panel of allergens"; see *also*, lines 35-36, "different receptor"), each receptor type immobilized on separate particles (see e.g., col. 6, line 7, "groups of microspheres"; see *also*, lines 15-16, "distinct groups of microspheres"; see *also*, line 34, "groups of

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microspheres"), the particles present as a mixture in said affinity binding composition;

(2) recovering the modified sample (see Fig. 6, "second absorbent member 38").

With respect to claim 85, Rubenstein describes a column (see Fig. 6) having a fluid inlet (see Fig. 6, "first porous member 14") and a fluid outlet (see Fig. 6, "second absorbent member 38").

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 62-64, 66, 84-85, 88-89, 104-107 and 110-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ullman *et al.* (US 5,137,808) in view of Rubenstein (US 5,879,881).

Ullman *et al.* describe a method for producing a modified sample, said method comprising:

- (1) removing (see Abstract, "capturing") at least a first protein and a second protein (see col. 20, lines 32-44) from a sample, said removing step comprising:

contacting the sample with an affinity binding composition (see Fig. 1A, "immunosorbing zone 84");

- (2) recovering the modified sample (see Fig. 1A, "absorbent means 20"; see col. 16, lines 29-32).

Ullman *et al.* do not describe a plurality of receptor types having different protein binding specificities relative to each other, each receptor type immobilized on separate particles, the particles present as a mixture in said affinity binding composition.

However, Rubenstein describes a plurality of receptor types having different protein binding specificities relative to each other (see e.g., col. 6, line 5, "different enzyme labeled antibodies"; see *also*, line 20,

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"panel of allergens"; see *also*, lines 35-36, "different receptor"), each receptor type immobilized on separate particles (see *e.g.*, col. 6, line 7, "groups of microspheres"; see *also*, lines 15-16, "distinct groups of microspheres"; see *also*, line 34, "groups of microspheres"), the particles present as a mixture in said affinity binding composition.

It would have been obvious for a person of ordinary skill in the art to replace the affinity binding composition of Ullman *et al.* with an affinity binding composition comprising a plurality of particles because Rubenstein discovered that particle-based compositions "may enhance the contact between receptor bound to the microspheres and the target ligand and permit effective washing during an assay process" (see col. 5, lines 20-24). According to Rubenstein, persons of ordinary skill would have a reasonable expectation of success because "Techniques for the coating or covalent binding of proteins to microspheres... are well known to the art" (see col. 4, lines 59-61).

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Response to Arguments

In prior Office Action, claims 32, 52, 62-69, 84, 89, 104 and 110-113 were rejected under 35 U.S.C. 102(b) as being anticipated by Stausbøl-Grøn *et al.*, 391 FEBS LETTERS 71 (1996).

In response, Applicants amend independent claims 63 and 84 to now require that each solid phase matrix "is a plurality of particles". Applicants' amendment is sufficient to overcome this rejection. Accordingly, this rejection is withdrawn.

In prior Office Action, claims 32, 52, 62-69, 84, 88-89, 104 and 110-113 were rejected under 35 U.S.C. 102(e) as being anticipated by Payan (US 6,455,263). In addition, claims 32, 52, 62-69, 84-85, 88-89, 104-107 and 110-113 were rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (US 6,696,304) in view of Payan (US 6,455,263). Finally, claims 32, 52, 62-69, 84-85, 88-89, 104-107 and 110-113 were rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (US 6,696,304) in view of Fulwyler *et al.* (US 3,710,933).

In response, Applicants amend independent claims 63 and 84 to now require simultaneous:

- (1) protein bound to solid phase matrixes; AND
- (2) a modified sample "not bound by" solid phase matrix

Applicants' amendment is sufficient to overcome these rejections. Accordingly, these rejections are withdrawn.

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Conclusion

No claims are allowable at this time.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Venci whose telephone number is 571-272-2879. The examiner can normally be reached on 08:00 - 16:30 (EST). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

David J Venci
Assistant Examiner
Art Unit 1641

djv



CHRISTOPHER L. CHIN
PRIMARY EXAMINER
GROUP 1800/1641